



Green energy production with PWED¹

High Tech for a sustainable world

1) PWED – Plastic Waste Energy Device



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Above mentioned companies and/or their representatives have the right to independently and/or collectively represent PWED technology for depolymerization of unclassified mixed waste plastics into oil, gas and carbon powder and conversion of produced oil and gas into electricity in generators on two fuels oil and gas.



Starting point

Plastic Waste – a global issue, but also a precious, almost unexploited resource!

Plastic waste – massive energy resources...

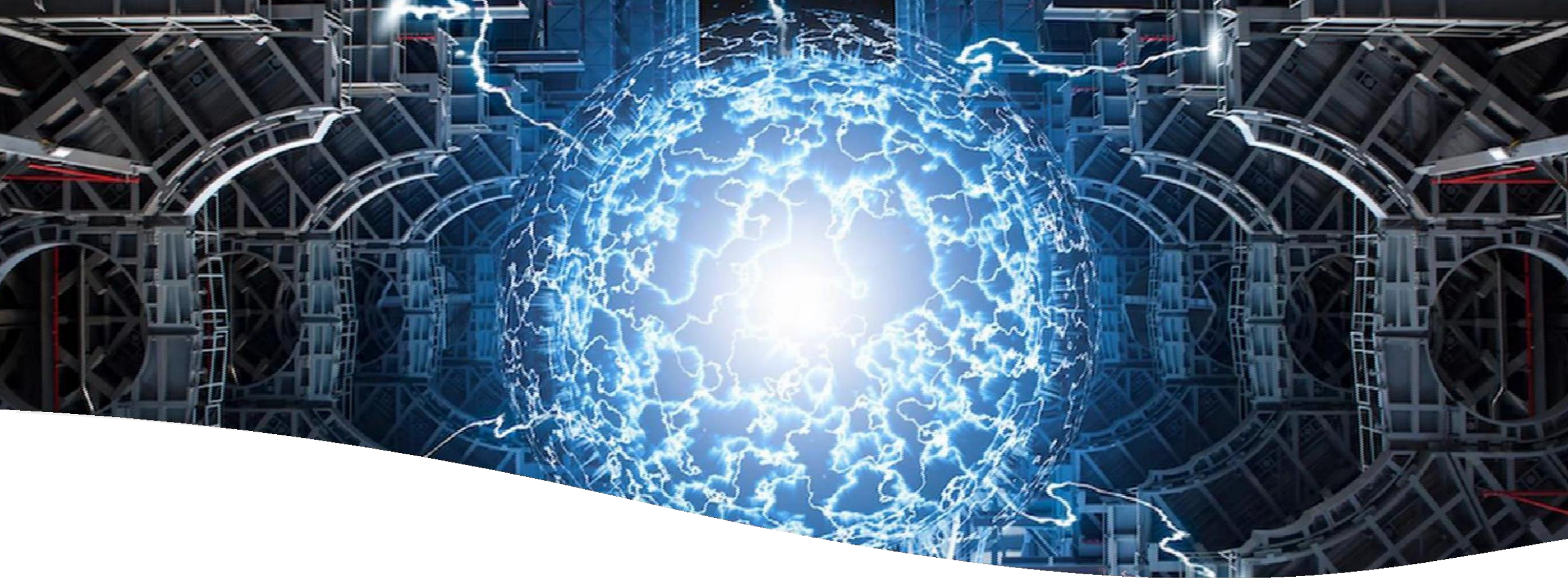
- Plastic waste does not degrade, even in several decades.
- Plastic production amounts to ~400 million metric tons in 2022 year, with 4% of yearly growth.
- Only 9% of the plastic is recycled, 91% are stored or left in the nature.
- Burning of plastic produces very harmful emissions.
- Storing of plastic is not effective and favors insalubrity.

➤ **The accumulated available plastic waste amounts to more than 6.7 billion metric tons, creating massive environmental and logistics issues. No sustainable solution for this problem has been found until now.**

Plastic waste – massive energy resources...

- Mixed plastic waste like PE, PP, PA, PS, ABS and Polycarbonate has an average energy content of approximately 40 MJ per kg. **Expressed as electrical energy, one kg of plastic allows a Tesla electric car to drive more than 50 km.**
- Therefore, 1 ton of plastic contains equivalent of 4 MW of electricity.
- At the moment, this energy potential is barely used.

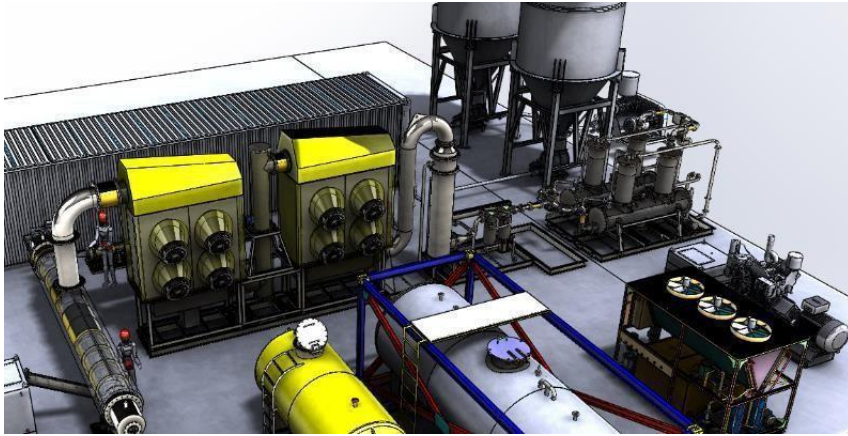
➤ **The accumulated available plastic waste contains more than 1500 TWh of usable energy. Each year, a potential of almost 800 GWh can be uncovered thanks to the conversion of plastic waste into energy.**



High Tech for sustainability

Proposing unique technology transforming waste into energy

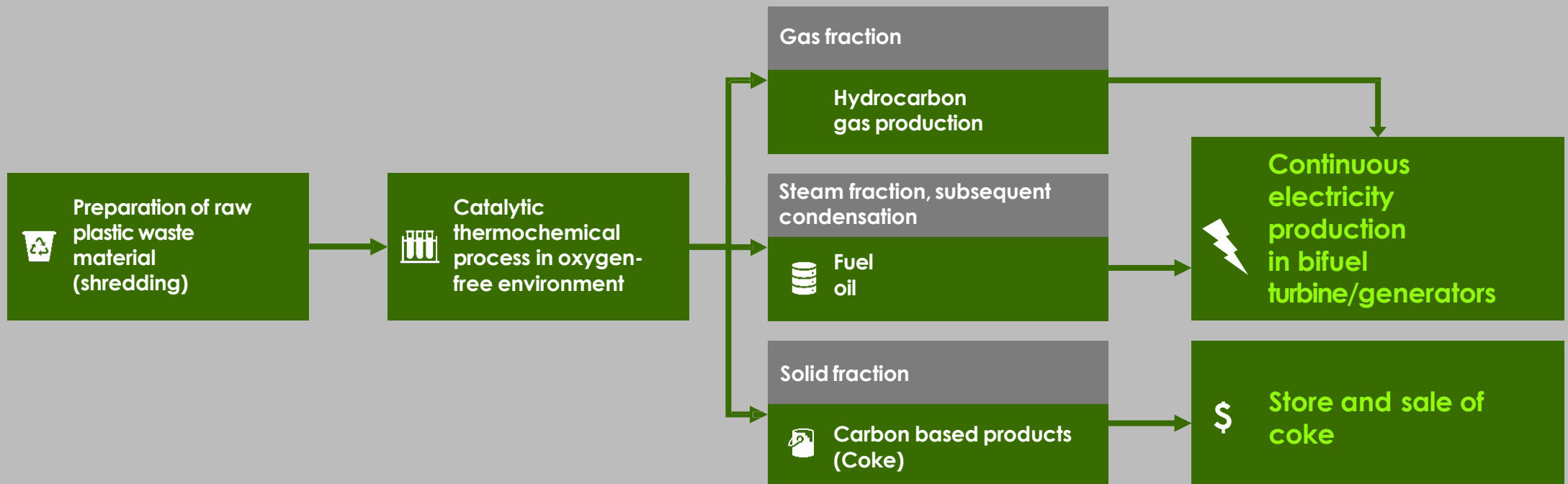
How to solve the plastic waste problem?



- Our technology works in a closed, continuous operation system without chimney and emissions. Input unclassified and unwashed waste plastics of all types are shredded into pieces 3 to 5 cm in size, melted and converted by our patented depolymerization process into hydrocarbon gases that condense into oil and gas, and impurities that cannot be melted are carbonized into coke granules. The system has a modular concept where each module requires only 150 m² of space.
- **Per hour, one module transforms 270 kg of mixed plastic PP, PE, ... in 220 liters oil, 70 kg gas and 12 kg coke granule.**
- Two modules in turbine/generator produce 2 MWh of electric current per hour.
- Furthermore, produced coke – used in the steel production.
- Preferred processable input materials are mixed plastic and rubber waste.

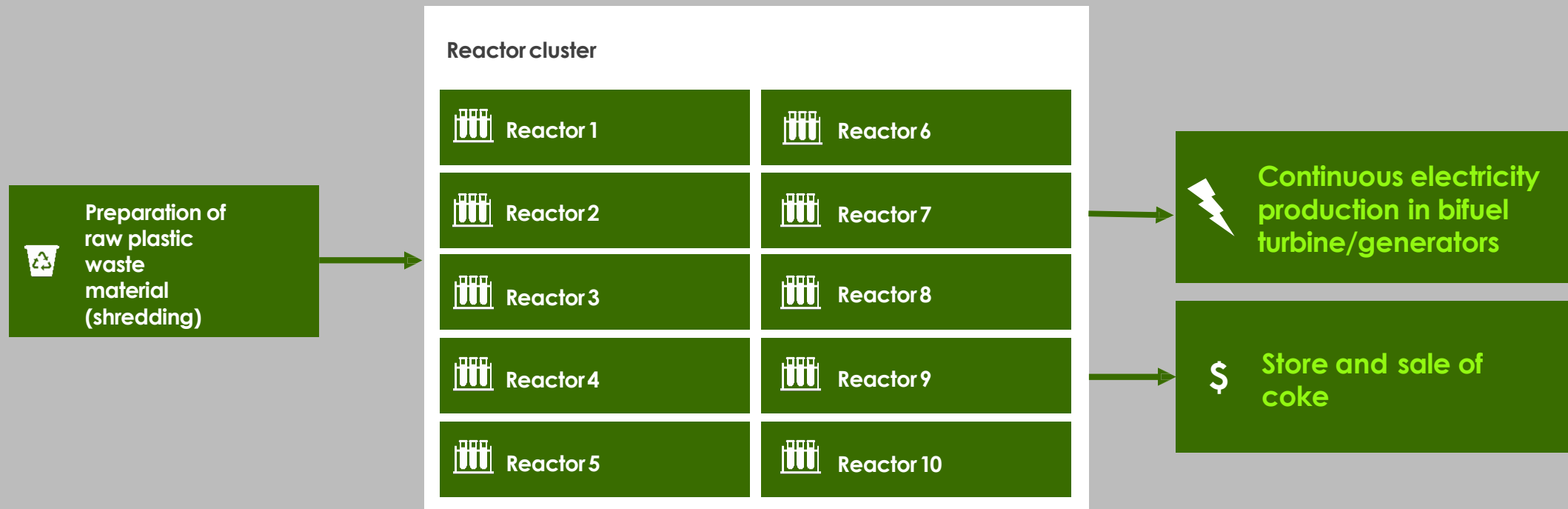
Process at a glance

We propose the solution based on a closed reactor for the transformation of plastic waste into energy.



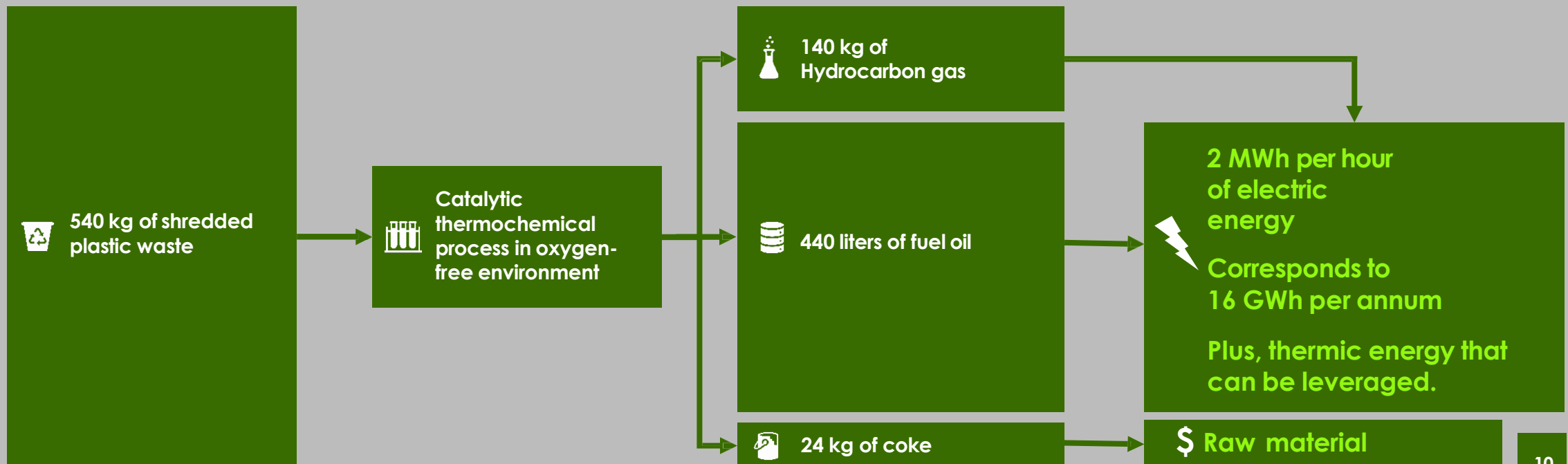
Reactor cluster

Each reactor module works in a closed circuit in continuous operations. Reactors can be easily combined to form reactor clusters, whereby two reactor produce 2 MWh per hour with an uptime of 99%.

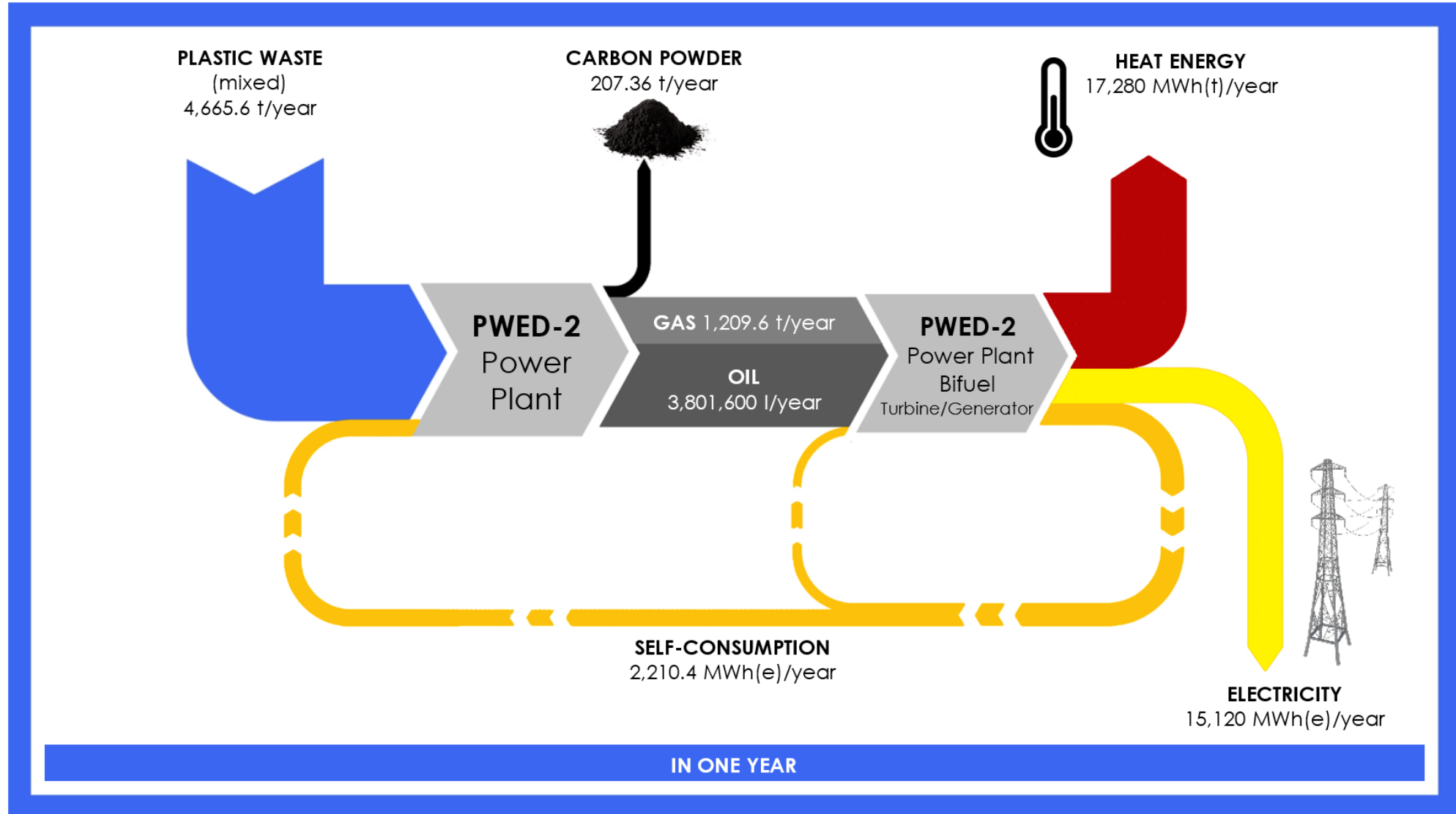


One PWED set, PWED-2 (2 reactors and 1 generator/turbine)

Production is highly efficient and emission-free. Output can be used in its primary form or transformed into electricity. Coke is sought after by the steel industry. The operating energy is produced by the process.



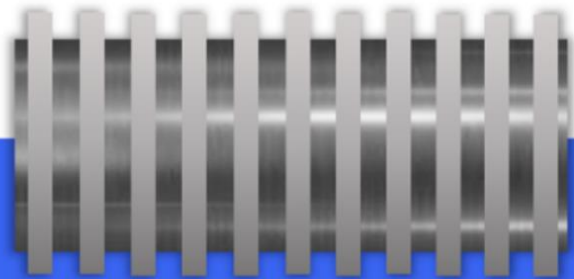
PWED-2, Annual Energy-Balance & Consumption & Yield



OUR DEPOLYMERIZATION VS COMMON PYROLYSIS

DEPOLYMERIZATION Heat Generation

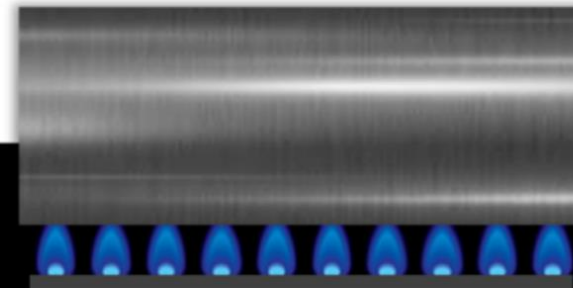
The material does not
burn on to the surface.



Extremely efficient
ceramic-electric heating rings.

PYROLYSIS Heat Generation

The material may
burn on the surface.



Gas and pyrolysis gas burners.

OUR DEPOLYMERIZATION VS COMMON PYROLYSIS

DEPOLYMERIZATION Required Temperature

0 – 600 °C
Precision-calibrated.



The temperature is finely and precisely calibrated.

PYROLYSIS Required Temperature

0 - 850 °C Cannot
be fine-calibrated.



Temperature cannot be fine-calibrated.

OUR DEPOLYMERIZATION VS COMMON PYROLYSIS

DEPOLYMERIZATION Process Temperature

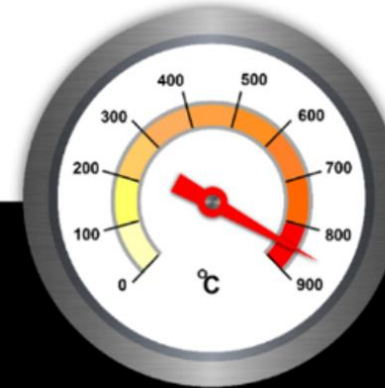
Up to 600 °C



Up to 600 °C (or 1112 °F or 873.15 K).

PYROLYSIS Process Temperature

Up to 850 °C



Up to 850 °C (1562 °F or 1123,15 K).

OUR DEPOLYMERIZATION VS COMMON PYROLYSIS

DEPOLYMERIZATION Environmental Effect

0.5 - 5 % Solid fraction, no toxic.
Depending on the composition
of the input material.



High-quality electro ceramic heaters do not create an unwanted effect on the environment. Inorganic components appearing in the input material are removed or carbonized into a solid pure carbon powder.

PYROLYSIS Environmental Effect

5 - 15 % Byproducts
and/or sludge.



Burning gas creates climate-damaging emission,
plus heavy metals, methane, carbon monoxide
and dioxide.

TECHNOLOGY

MATERIAL

VOLUME

FOOTPRINT



PWED-2
PLASTIC
WASTE
ENERGY
DEVICE

4,730.4 tons
of mixed
plastic waste

15,330 MWh
Electricity and
63,072 GJ
Heat energy

9,461 tons
CO₂ ▼



Oil extraction
and refining

4,730.4 tons
Oil
(crude oil)

12,581 MWh
Electricity and
66,930 GJ
Heat energy

10,971 tons
CO₂ ▲



Waste
incineration
plant

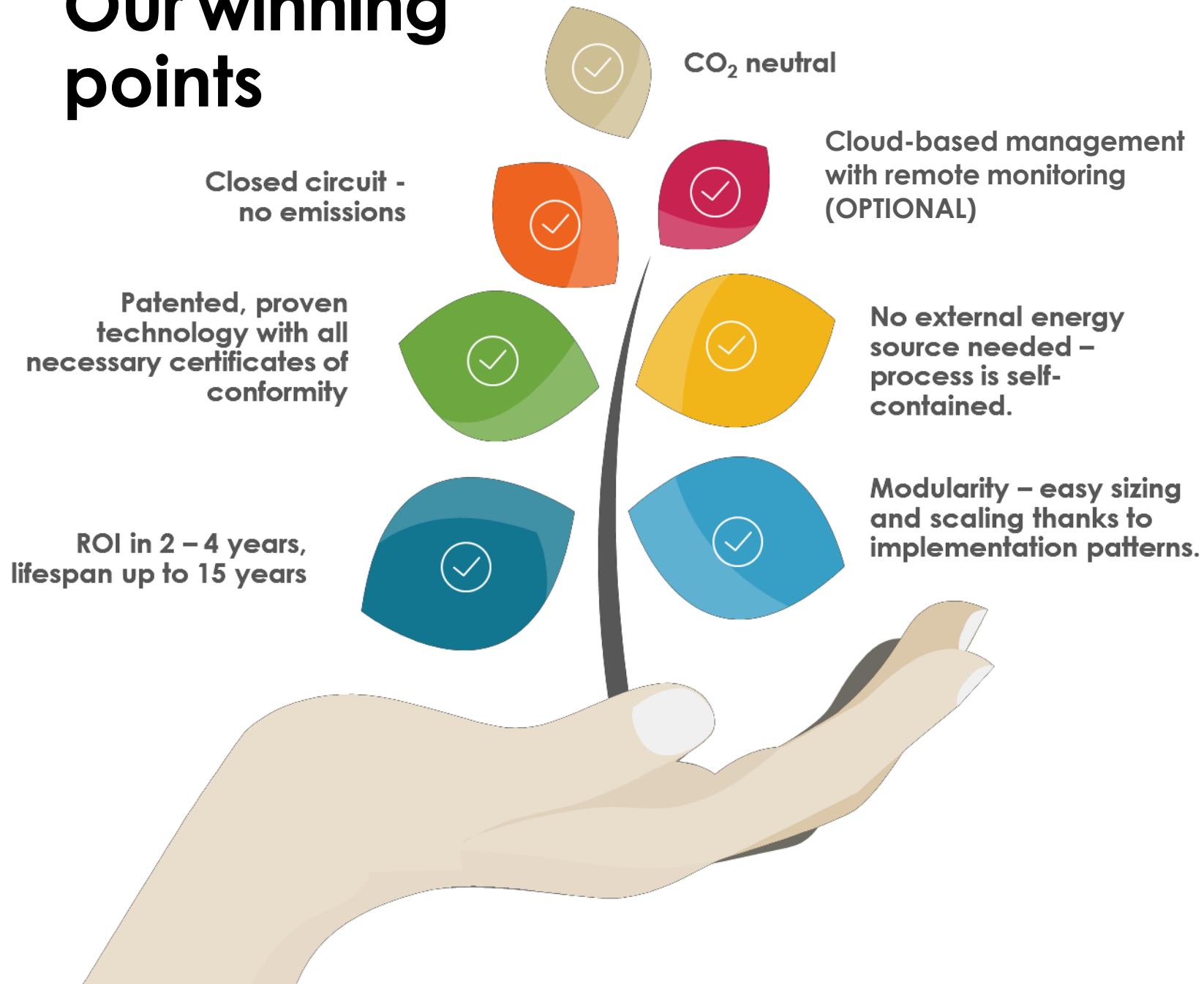
4,730.4 tons
of mixed
plastic waste

5,913 MWh
Electricity and
42,574 GJ
Heat energy

13,527 tons
CO₂ ▲▲

For the same amount of material, in tons, which are processed by different technologies, different amounts of energy are obtained. Some technologies create CO₂ emissions in the process (**RED TRIANGLES**) and others according to the official EU position, „**CREATE (GREEN TRIANGLES)**” CO₂ CC emission, due to the permanent removal of waste plastics from use, and without emissions, per tone of permanently removed plastic, the EU recognizes **2 CC units for every tone of emission-free plastic removed**. CC can be traded in the ETS market at <https://tradingeconomics.com/commodity/carbon> address.

Our winning points



We propose the technology in a full service model with centralized control, allowing maximum uptime and yield, reducing the local complexity to a minimum.

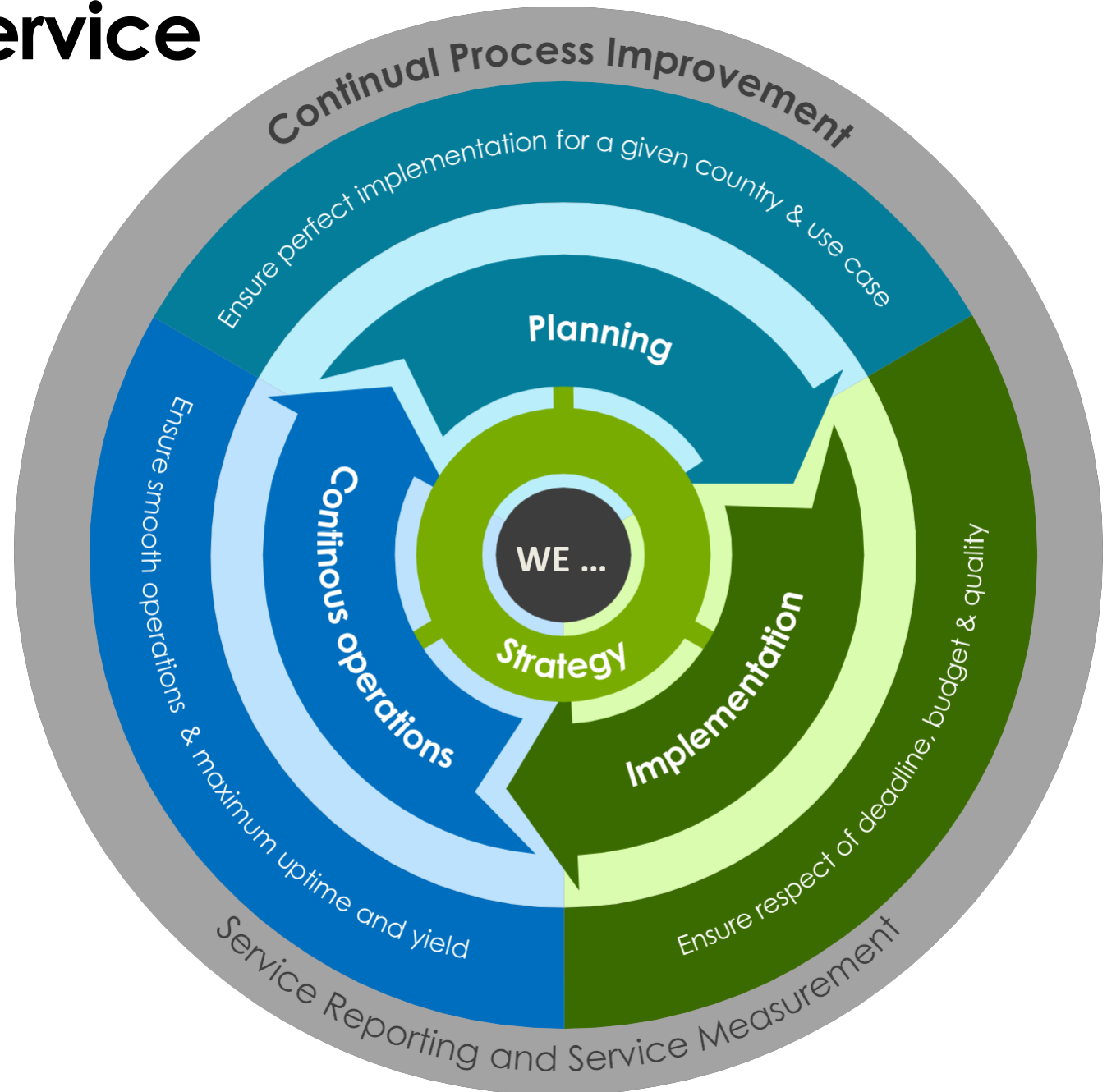
The technology has proven its efficiency, doesn't produce any emissions and benefits from all relevant EU environmental certificates, and confirmation that the system is declared for the processing of plastic waste according to the R1 and R3 standard. The core technology is patented in 170 countries globally.

Our company's reinvested in the continual development of the technology to increase the output and include other waste materials into the future production.

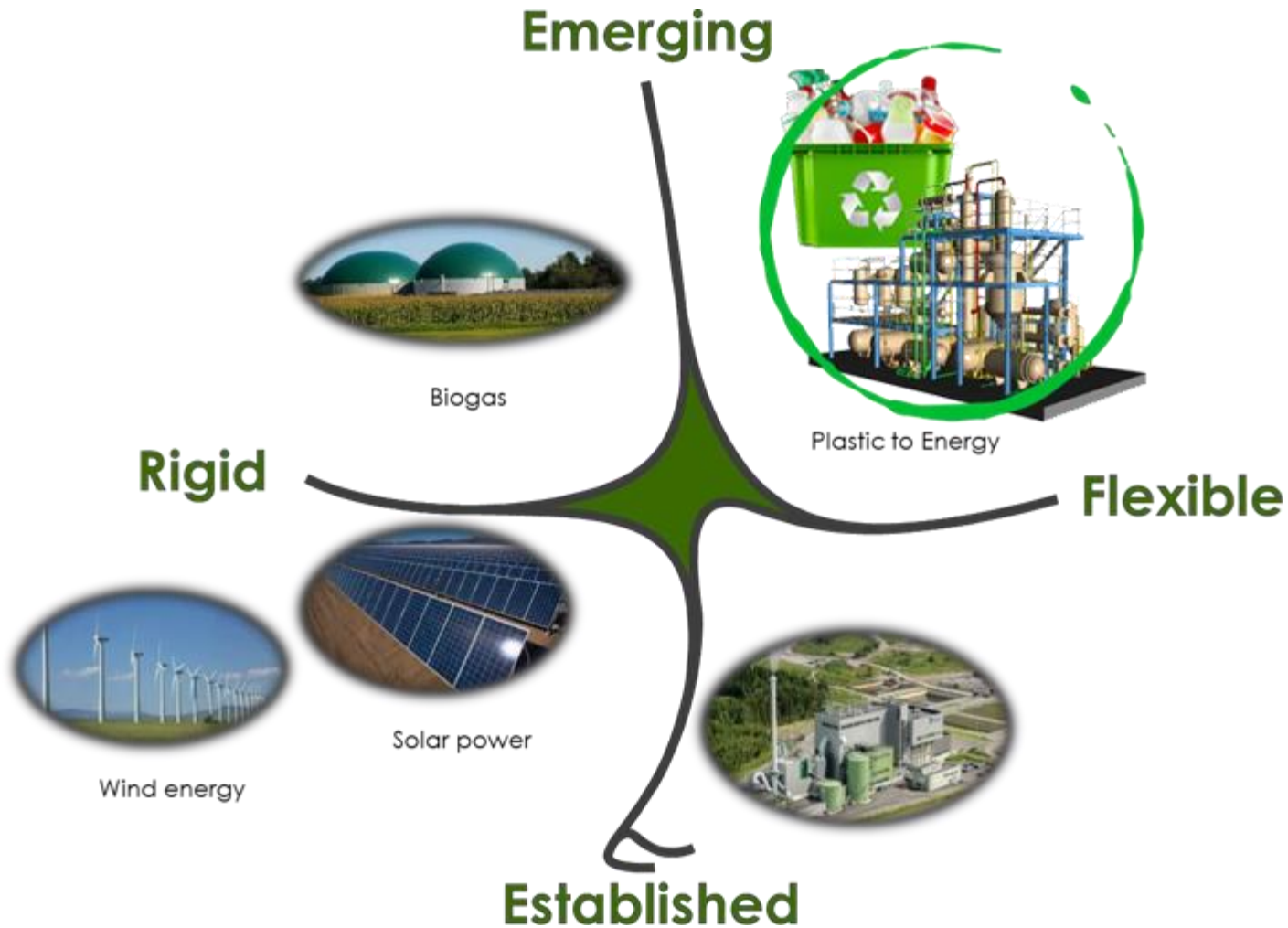
A comprehensive service delivery framework

We apply full-service approach management with the following advantages:

- Maximum uptime
- Maximum yield
- Maximum security
- Constant access to improvements and upgrades
- Minimize regulatory hassles



Assessment: green energy production



Our technology is a perfect complement to other green energy production methods.

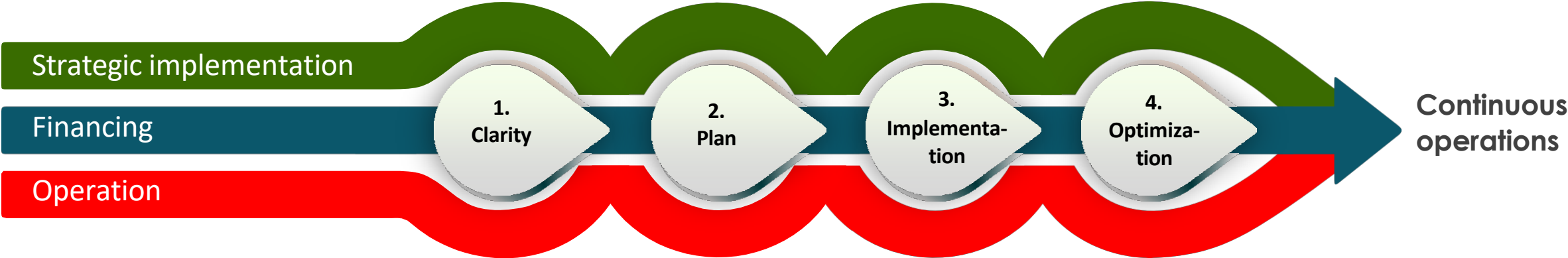
We significantly helps to resolve the plastics waste problem and excels with a high degree of flexibility of production.

For highest yield and handling of plastic waste without wasting energy in the preparation of raw materials, a reactor cluster can be combined with a biogas reactor. The output of the latter is consumed by the bifuel cogenerating units.

Strategic, financing, operation

Planning & sizing

Implementation & trial work



- Macro & micro economic analysis
- Technical implementation
- Sizing
- Frame Conditions model
- Supply chain
- Management & legal setup
- Construction
- Installation
- Compliance & legality
- Instructions
- Security & Continuity
- Optimization
- Operational efficiency
- Checks & controls
- Signing the statement on taking over the plant

4 – 6 months 10 – 12 months 15 years



Carbon pollution tax

Additional financial benefits to using PWED technology

Carbon pollution tax expressed in CC (carbon credits)

- The EU's official assessment is that the recycling of one tonne of plastic waste has the equivalent of 2 CC, which means that the PWED[®] device produces CC by recycling waste plastics.
- Carbon credit (CC) is a generic term for any commercial certificate or license that represents the right to emit one ton of carbon dioxide or the equivalent amount of another greenhouse gas.
- Carbon credit and carbon markets are an integral part of national and international attempts to mitigate the growth of greenhouse gas concentrations. One carbon credit is equal to one ton of carbon dioxide or in some markets of carbon-equivalent gases. Carbon trading is the application of an approach to emissions trading. Greenhouse gas emissions are limited and then markets are used to assign emissions to a group of regulated sources.
- Two PWED[®] units and one turbine/generator recycles 540 kg of plastic per hour, without creating harmful emissions.
- Recycling 12,960 kg of unclassified plastic waste in 24 hours entitles you to $12.96 \times 2 \text{ CC} = 25.92 \text{ CC}$ for one day. Annually it amounts to $330 \text{ days} \times 25.92 \text{ CC} = 8.553.60 \text{ CC}$.

Chart of carbon credit (CC) value movements



- The current price level of pollutant rights remains "probably too low" to achieve the set goal of carbon neutrality.
- The EU's 2030 climate package is likely to push the price of carbon credit towards 200 per tonne of CO₂.
- Considering the above, the use of PWED[®] technology with the obtained 8,553.60 CC per year achieves the opportunity to earn an additional € 929,690.78 (calculation based on 1 CC = 108.69 € which is the expected amount for the period of the next 3 months).

Source: <https://tradingeconomics.com/commodity/carbon>

How World can make the world become a better place?

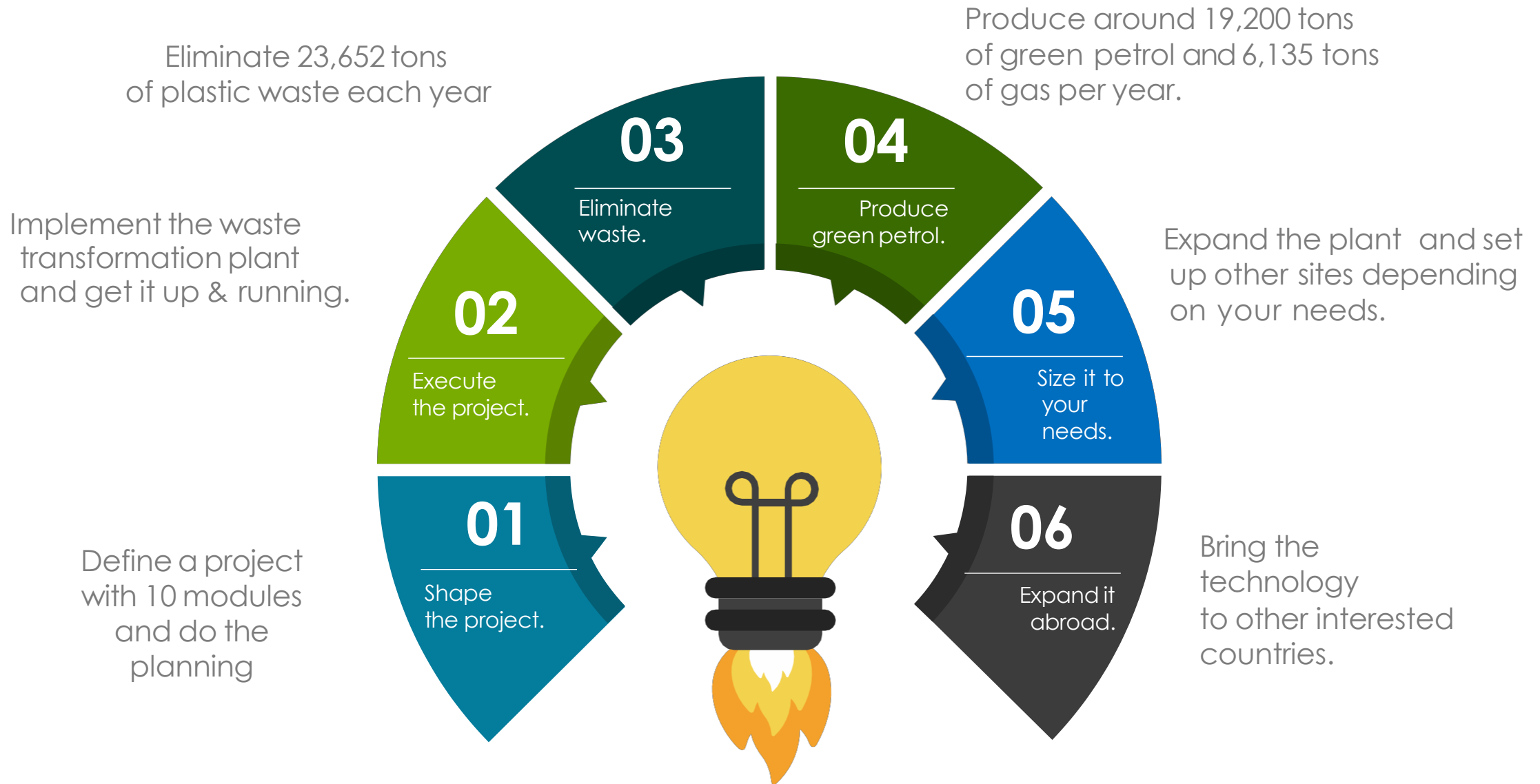


Plastic waste in 2022 year in World equals to **400,000,000** tons. That waste plastic which can be processed by **180,000** of our PWED reactor in year and produce a total of **2,850,000** GW of green electric energy in year or produce from that energy **47,500,000 tons of green hydrogen**.

Advantages at a glance

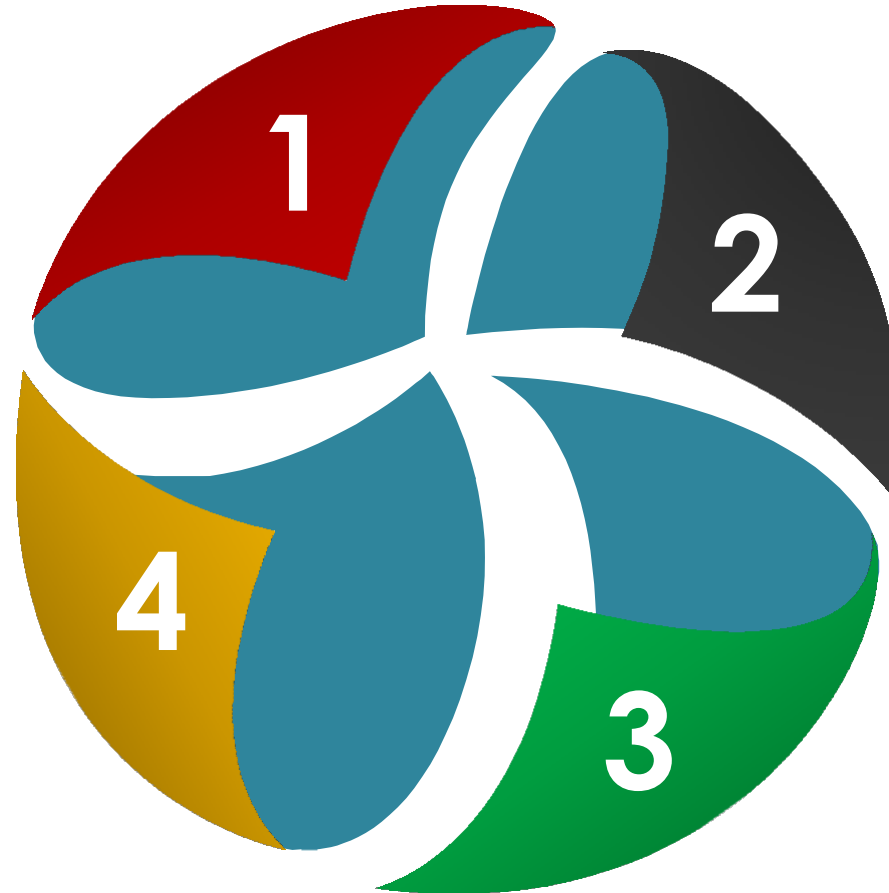
- 1 Resolve the waste problem.
- 2 Position yourself as a leading-edge innovator in green technology.
- 3 Allows yourself to differentiate with green oil.
- 4 Bring the technology to the yourself countries.
- 5 Give new opportunities to the countries.

Implementation scenarios ...



An excellent business opportunity

Return on investment:
3 – 4 years



Proven technology with
17 years of development
effort

Growing market &
answer to urgent problem

Reliable manufacturer &
global patent protection



Demonstration plant gallery

PWED plant that can be viewed by arrangement.

Entrance of the raw material



The incoming waste unsorted plastic material is chopped in a shredder and falls on a moving belt that carries it to the melting part.

The chopped material passes under a simple section to separate the parts that are magnetic.

More complex material that has non-magnetic parts needs to be additionally processed on specific equipment before entering the PWED.



Melting process



Before the melting process in the melting section, the incoming material is swirled and in this process any moisture, which can be up to 15%, is dried.



The process of depolymerization



The depolymerization process of the molten input raw material takes place in the depolymerization chamber under low pressure and at a temperature of up to 600° C. The turbine that applies the molten input raw material to the shell of the depolymerization chamber rotates at low speed and is changed every 5 years. A replacement depolymerization turbine is also supplied with the PWED plant. The replaced depolymerization turbine is being repaired and is being prepared for the next replacement.

The molten layer of the input raw material evaporates into a mixture of hydrocarbon gases and enters the process of condensation of diesel and gas fractions.

Carbonized impurities



Impurities from waste plastic, such as food and drink residues, pieces of wood, pieces of fabric and the like, are carbonized into dry and fine coke granules during melting in waste plastic melting section.

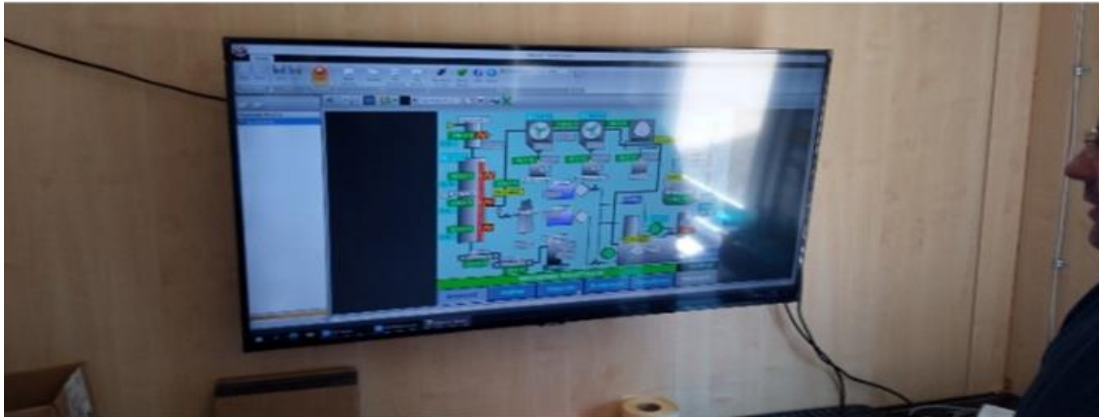
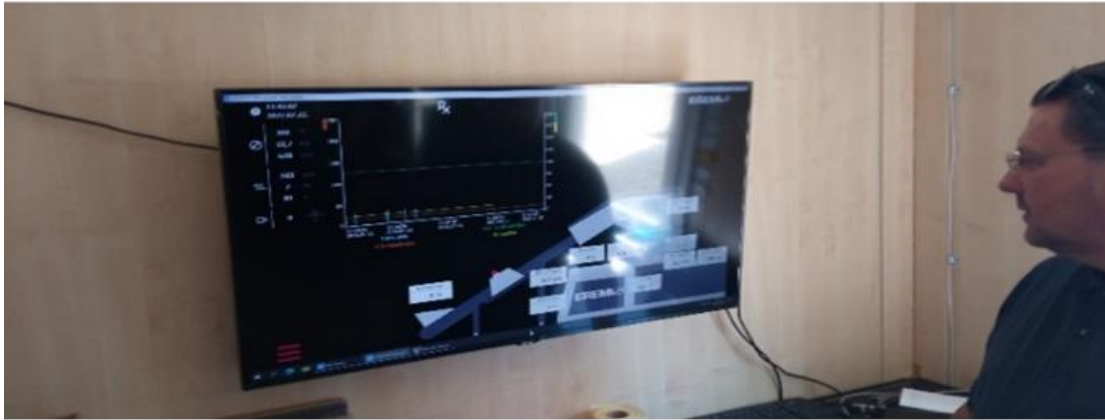
All impurities that cannot be carbonized or melted, such as pebbles and sand as well as larger metals, which are tried to be processed with the PWED plant outside of the regulations, are separated in the ash chamber of the smelter part.

Condensation of hydrocarbon gases



The molten input raw material depolymerized into a mixture of hydrocarbon gases, in the depolymerization part, is condensed into three fractions of diesel fuel and one fraction of gas.

Control Room



The control room is a 20-foot container that houses a large control screen that displays plant operating parameters. Management and monitoring of all parts of the plant, through the SCADA interface, are visually displayed and programmable from the control room.

Demonstration of input raw material



Click on the image to start the video!

Demonstration of carbonized impurities



Click on the image to start the video!

Demonstration of gas produced



Click on the image to start the video!

Demonstration of oil produced



Click on the image to start the video!

Demonstration with English subtitles



The demonstration video shows a version of the device with a classic diesel/gas generator, but now a much more efficient turbine/generator is supplied with the device.

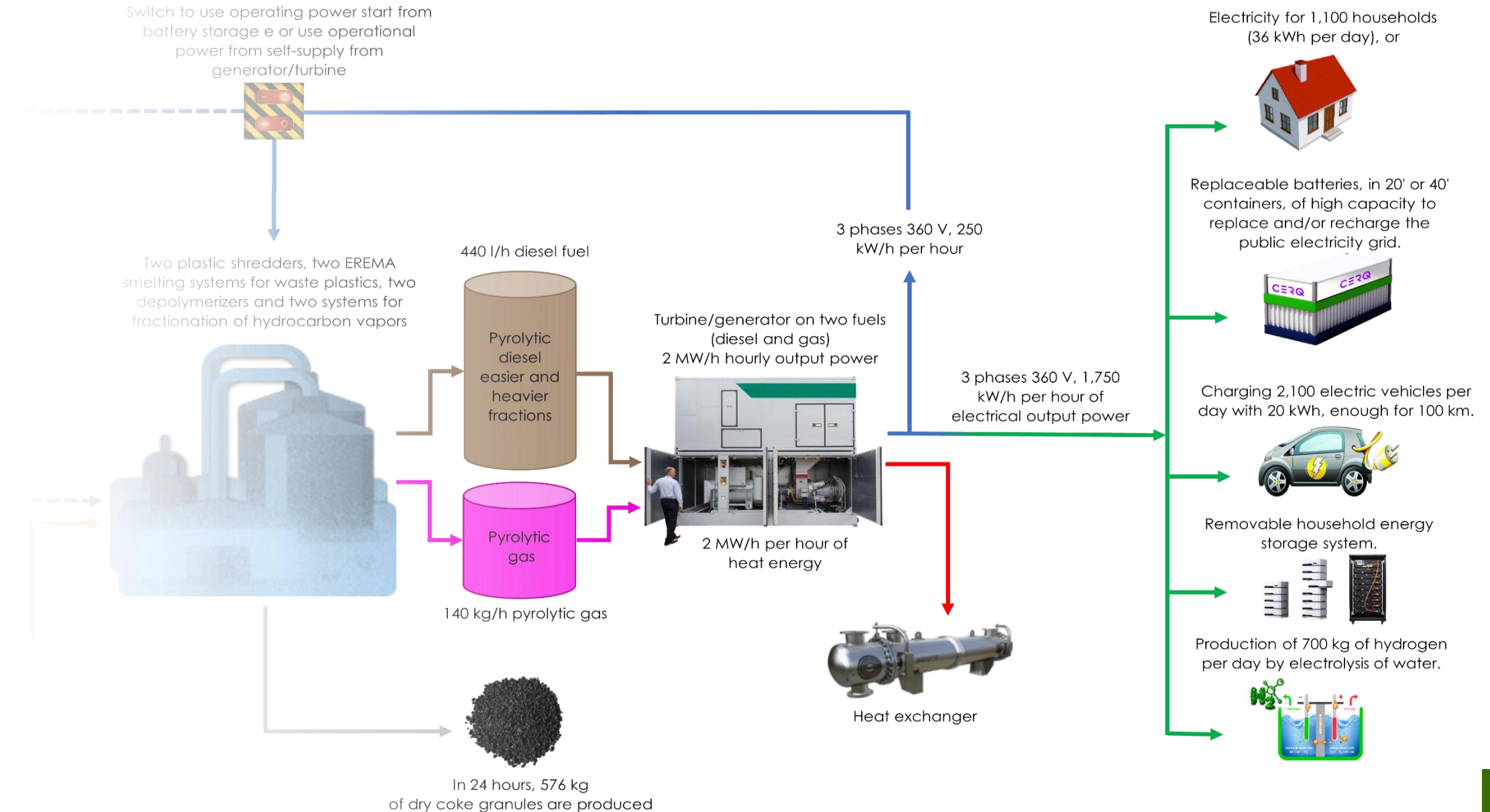
Click on the image to start the video!



What can be done and future ...

What can electricity from PWED and the future - green hydrogen.

What can be done electricity from one PWED set?



9 PWED KEY FACTS ...

1. WARRANTY 5 YEARS.
2. WORKING LIFE 20 YEARS.
3. BUYER GET BANK WARRANTY FROM BANKS REPUTABLE IN THE WORLD.
4. PRODUCT 100% MADE IN EUROPE.
5. ORDER CAN BE DONE IMMEDIATELY.
6. DELIVERY IS 4-6 MONTHS, DEPENDING ON ACCESSORIES AND SUPPLY CHAINS.
7. NOT A START UP PROJECT. TECH DEVELOPMENT STARTED 20 YEARS AGO. EARLY 2022 WE ARE AUTHORIZED TO GLOBALLY PROMOTE AND SELL THIS AMAZING TECH.
8. AFTER 2 HOURS OF START FROM BATTERY STORAGE OR GAS STORAGE PLANT IS SELF SUFFICIENT.
9. PLANT HAS NO CHIMNEY AND DOES NOT PRODUCE HARMFUL GAS OR SMOKE EMISSIONS

PWED – Plastic Waste Energy Device

The usual lifestyle adopted by modern society creates a large amount of plastic waste. This is becoming a growing problem, [especially in urban areas as well as oceans, lakes, and rivers. Our environment is flooded with waste plastic.](#)

We have a sustainable and profitable solution to this problem – PWED. PWED produces electricity and thermal energy from waste plastic.

- The control room is a 20-foot container that houses a large control screen that displays plant operating parameters. Management and monitoring of all parts of the plant, through the SCADA interface, are visually displayed and programmable from the control room.

Warranty 5 years! Working life 20 years!

PWED is a self-starting system. For the installation one PWED-2 (two depolymerization reactors and one turbine/generator), together with the manipulative space for incoming raw materials, a typical prefabricated industrial hall 15 m long, 15 m wide and 10 m high is sufficient.

Chargers for electric vehicles, electrolyzers for hydrogen production, 20-fit containers with cylinders in which 700 kg hydrogen is stored or LOHC 12 m³ depot for 700 kg hydrogen, charging stations for hydrogen vehicles, and heat exchanger with heating/drying/cooling/freezing systems are not included in the price and must be ordered separately if necessary.

Yes, PWED-2 produces enough electricity to produce 700 kg of green hydrogen per day.

How to?! To produce 1 kg of green hydrogen, with electrolysis of water, you need 10 liters of drinking water. The production of drinking water by desalination of seawater and/or filtration of unclean fresh water and the production of 1 kg of hydrogen from the obtained 10 liters of drinking water requires ~60 kW of electricity, and one PWED-2 per day produces 42,000 kW of electricity.

The future is green hydrogen!

Green hydrogen is the only known pure energy molecule that can be produced to any extent and in almost any place on earth.

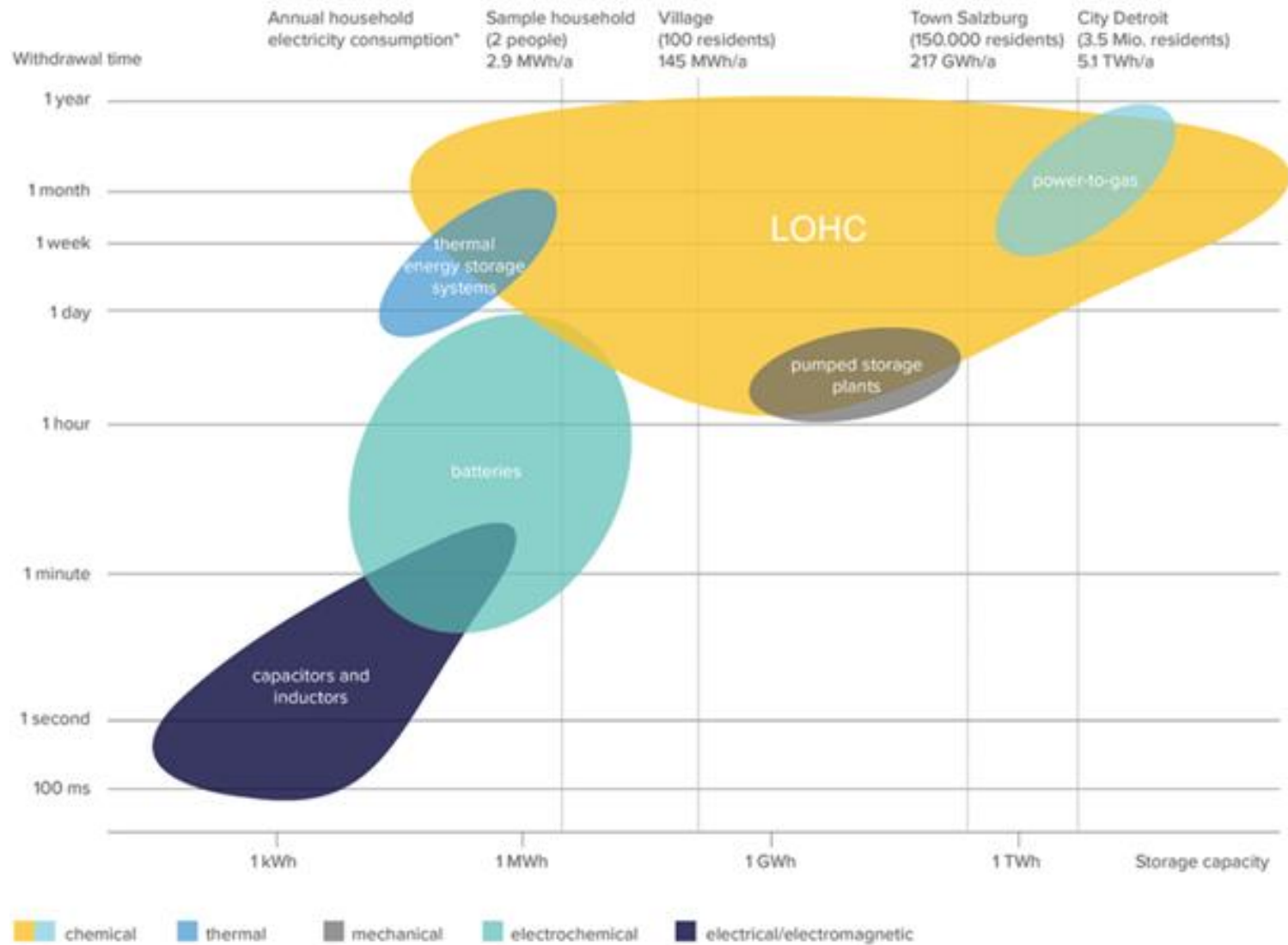
Green hydrogen offers almost every community, company, and society the potential to produce its own fuel. LOHC – “hydrogen oil” – is an inexpensive way of storing and transporting bulk (gaseous) hydrogen. Molecular hydrogen is connected in “hydrogen oil” to the carrier, benziltoluen (BT), into a non-toxic and non-flammable liquid. With this combination, hydrogen becomes suitable and safe for transport and distribution under normal ambient conditions, It's like a classic oil.

The filling of “hydrogen oil” looks so that in LOHC- imprints molecular H_2 under a pressure of 20 to 70 bar by hydrogenation process whereby up to 180 °C of heat is released and thus obtained LOHC+.

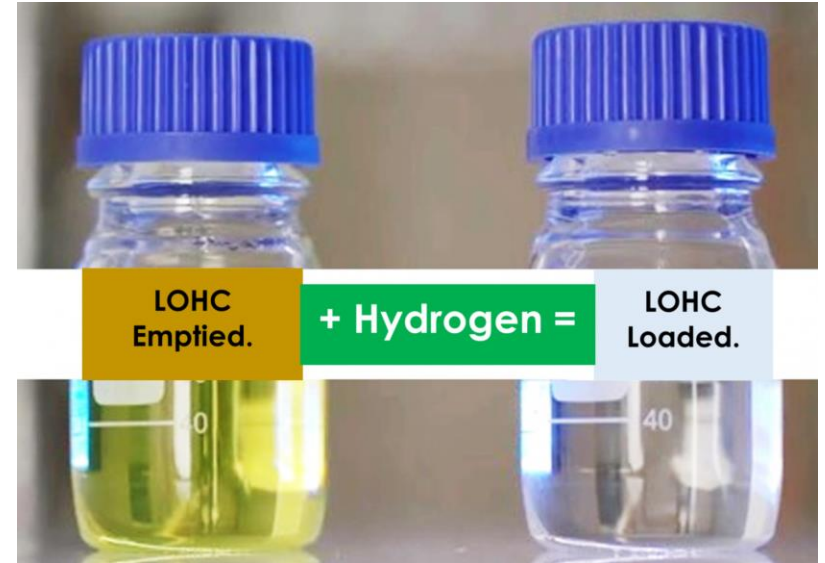
When emptying full “hydrogen oil”, LOHC+, at a temperature of approximately 300 °C and a pressure of 2 bar, molecular hydrogen H_2 is released, and LOHC+ passes into LOHC-. LOHC- is ready for new filling, and H_2 for direct use by standardized methods. But for the whole story of hydrogen and decarbonization, the cheapest possible source of electricity, from renewable sources or from waste, especially unsorted waste plastics, is first needed.

Oil and gas became what they are – a “global energy carrier” when a global system of transmission from the point of origin/production to the place of consumption/use of the “energy carrier” was designed and established. It is undeniable that hydrogen is a superior carrier of energy than oil and gas, due to little or no harmful impact on the environment. Disputed and questionable was the transport and distribution of hydrogen from the place of production to the place of consumption. LOHC – “hydrogen oil” is the answer chosen by the world as the solution to the problem of transporting and distributing a new environmentally friendly and energy-superior energy carrier – hydrogen.

LOHC – „hydrogen oil”



* excluding industry, trade, commerce and services; electricity requirement per person: 1.45 MWh/a



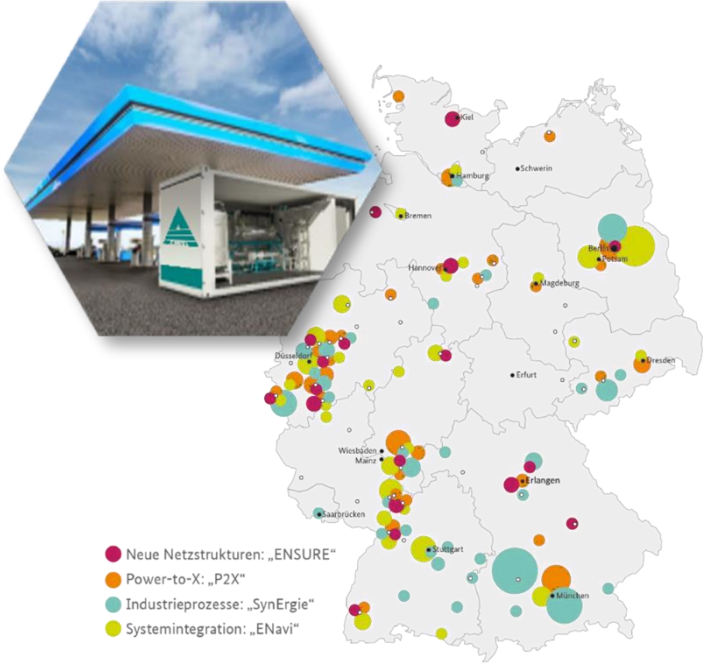
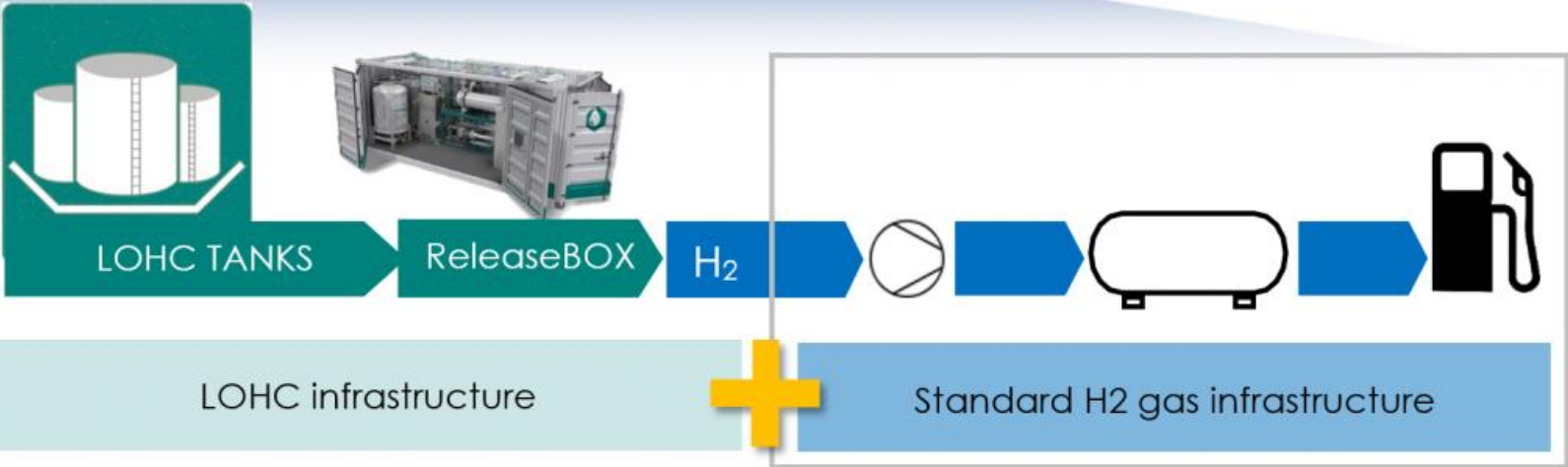
LOHC converts hydrogen into secure energy storage technology.

LOHC makes the use of hydrogen as an energy source simple, safe, and efficient, enabling the storage, transport and discharge of large amounts of electricity in an environmentally friendly and harmless manner, without the usual cryogenic conditions for manipulation with other forms of hydrogen.

Gas station with LOHC hydrogen filling station



- Low frequency of hydrogen delivery in gaseous state
- Lowest cost for bulk storage H2
- No charge/discharge losses
- Safe handling
- The most similarity to the socially accepted handling of oil



Base stations for supplying LOHC in Germany

Filling factory LOHC

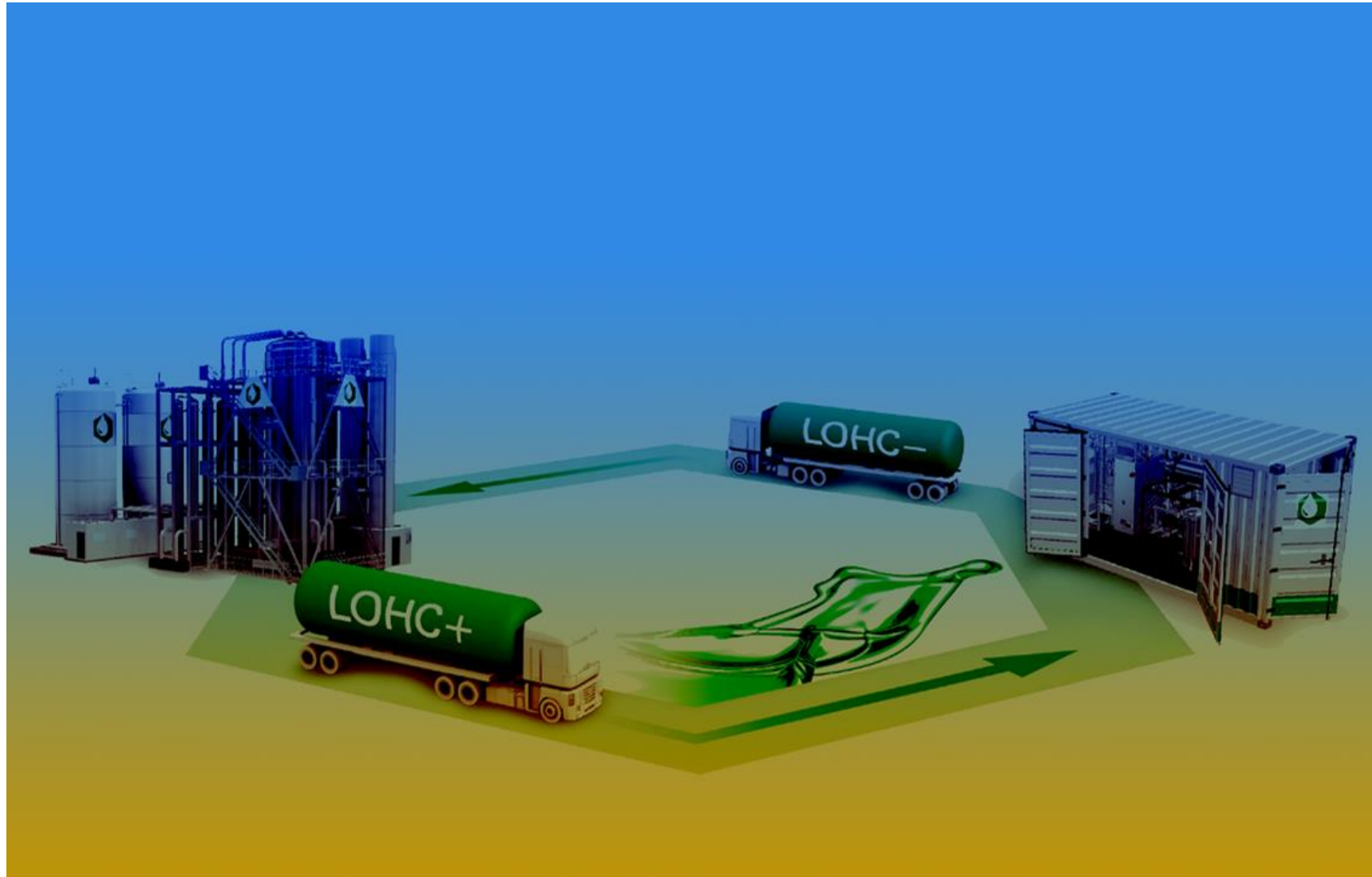


Several manufacturers has designed a modular LOHC storage plant for filling LOHC with molecular hydrogen storage capacity of 5 tonnes of hydrogen per day. Typically, 5 tons of hydrogen can drive half a million kilometers of hydrogen-powered vehicles.

In the LOHC storage plant, hydrogen is chemically bonded to LOHC material benzyl toluene, thermal oil.

This oil carrier can be transported under environmental conditions in conventional and existing logistics infrastructures comparable to the delivery of oil or diesel. LOHC filled with hydrogen is loaded into a road transport truck to LOHC hydrogen discharge stations.

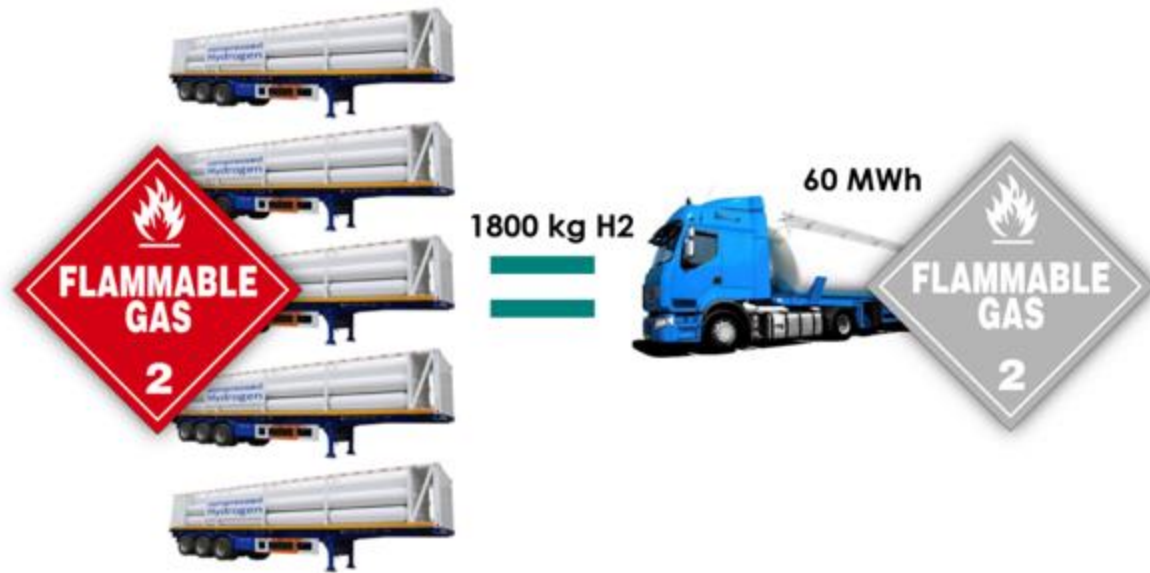
Transport scheme H₂ in LOHC form



It is not disputed that it is the most environmentally friendly “green hydrogen”, but its production is relatively expensive due to the energy needed for electrolysis. The production price for 1 kg of green hydrogen today, with the use of electricity from waste plastics, is approximately 1.7 EUR, whereby it should be counted that the ubiquitous problem of waste plastics should be solved permanently and environmentally friendly.

Today, it is not a problem to produce hydrogen. Modes of transportation have required large investments and adjustments. The choice of LOHC as a H₂ carrier considers all the usual methods for the transport and trading of hydrogen.

Transport of cryogenic H₂ VS transport H₂ in LOHC

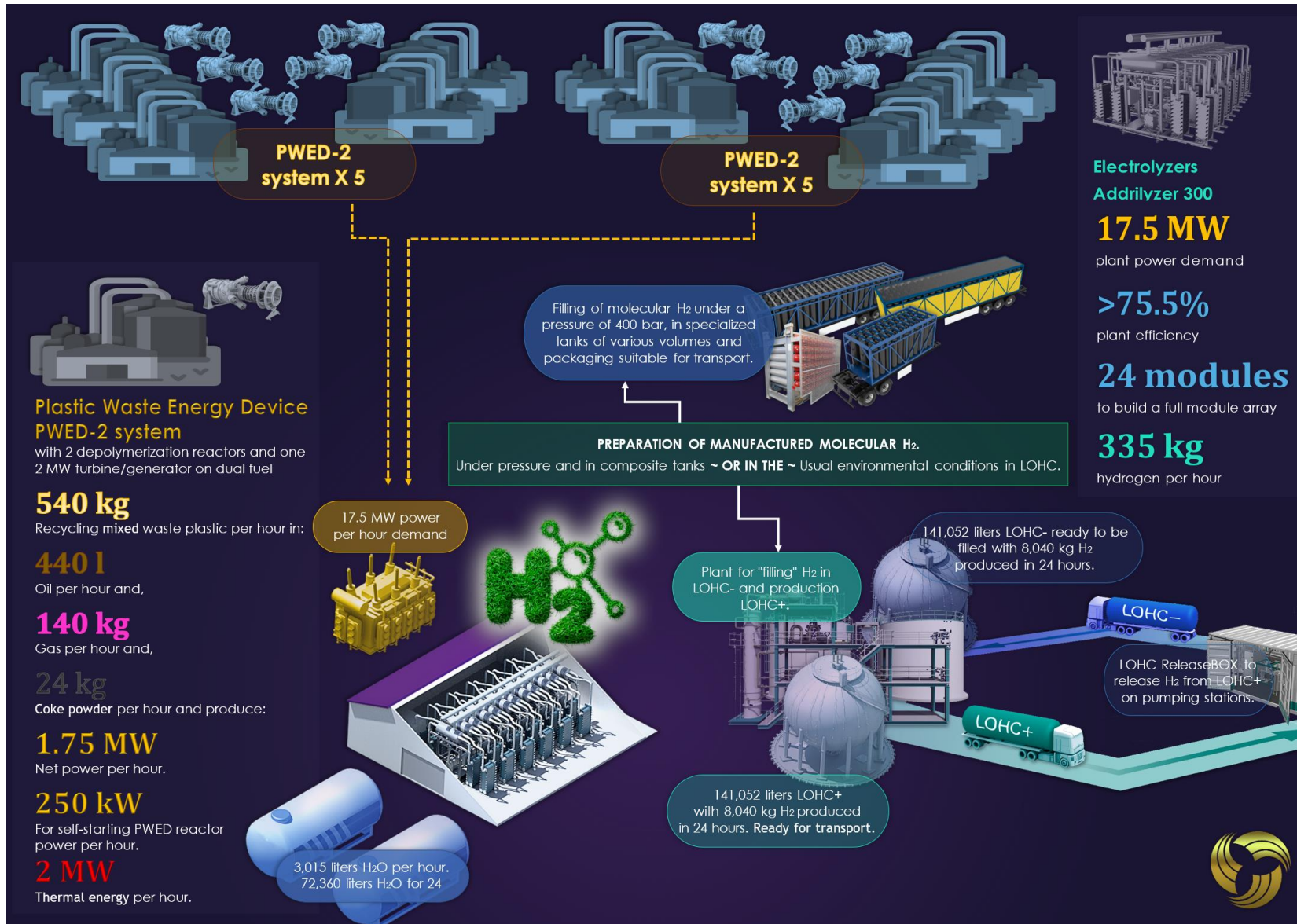


Capital expenditure (CAPEX) for trucks and trailers	
For transport cryogenic hydrogen	For transport LOHC hydrogen
~ 2.000.000 EUR	~ 250.000 EUR

LOHC, thanks to its similarity to the handling method, which is close in society to the usual use of oil, has become widely accepted in Germany i it's a bit of a solution for global hydrogen transport.

Germany, Europe and the whole world are targeting carbon-free energy imports in the form of green hydrogen. LOHC enables the realization of high demand in a safe and cost-effective way.

PWED IN HYDROGEN PRODUCTION



The left image shows the complete ecosystem for the production and transport of hydrogen produced from electricity produced by PWED.

The entire ecosystem has a price of EUR 300 million. Yes, we know it is a lot, but the whole system produces a little less than 3,000 tons of green hydrogen per year and at the same time destroys 4,730 tons of waste plastic, without harmful emissions of gases into the environment.

The prices of electrolysis equipment vary greatly and change on a daily basis.

Toyota Hydrogen ICE vehicle – A future that is already the present



Toyota is cooking up something new in their garage! And it's not just any ordinary vehicle. We're talking about a brand new, revolutionary hydrogen vehicle! So, you may have heard about the Mirai, the hydrogen-powered Toyota vehicle that uses fuel cells to generate electricity. But now, Toyota has come up with something completely different. They're calling it the new hydrogen combustion engine.

Click on the image to start the video!



Investment in PWED technology!?

How much does PWED technology, ROI, production license cost ...?

PWED-2 consists of 2 PWED reactor and one generator/turbine

Depolymerization reactors can be connected to a cluster and connected to a larger generator/turbine, but we recommend, due to easier maintenance and higher tolerance to possible failures, the installation of a larger number of PWED-2 systems, according to the amount of available waste plastic.

#	Description	1 Hour	Day (based on 3 shifts per 8 hours)	Monthly (based on 30 working days)	Year (based on 330 working days)
1	Amount of waste plastic (input material)	540 kg	12.96 t	388.80 t	4,276.80 t
2	Amount of oil produced	440 l	10,560 l	316,800 l	3,484,800 l
3	Amount of gas produced	140 kg	3.36 t	100.80 t	1,108.08 t
4	Amount of coke granules	24 kg	576 kg	17.28 t	190.80 t
5	Produced electricity (net)	1.75 MWh	42 MWh	1,260 MWh	13,860 MWh
6	Produced thermal energy	2 MWh	48 MWh	1,440 MWh	15,840 MWh
7	Possible power supply for the (NH) number of households (36 kWh per day)	48.61 NH	360 NH	35,000 NH	385,000 NH
8	The ability to charge electric vehicles with 20 kWh, which is enough for a range of 100 km, in the number of vehicles (NW)	87.50 NW	2,100 NW	63,000 NW	693,000 NW
9	Production of hydrogen from seawater, in kg	29.16 kg	700 kg	21 t	231 t
10	Installation price 2 PWED reactor and one turbine/generator	10.500.000 €			

If you may be interested in purchasing the rights to produce PWED devices in your country, we are also open to that option. Send us an inquiry about your interest in purchasing "Production rights with knowledge transfer with engineering training" at the mladen@addryn.com.

Chemical analysis oil and gas from PWED 1/2

For the obtained gas and fuel oil, a chemical analysis was carried out according to the authorized laboratory in Budapest on samples from real production. Sampling and analysis were carried out following relevant standards, namely:

1. EN ISO 12937:2001 (Petroleum products – determination of water – Karl Fischer's coulo-metric method),
2. EN ISO 3104:1996 (Petroleum products - Transparent and opaque liquids - Determination of kinematic viscosity and calculation of dynamic viscosity),
3. EN ISO 6245:2003 (Petroleum products -- Determination of ash),
4. ASTM D4052:2011 (Standard Test Method for density, relative density, and API gravity of liquids with digital density meter),
5. EN 15408:2011 (Solid recovered fuels - Methods for determining the contents of sulfur (S), chlorine (Cl), flora (F) and bromine (Br),
6. EN ISO 10304-1:2009 (Water quality - Determination of dissolved anions by ionic liquid chromatography - Part 1: Determination of bromide, chloride, fluoride, nitrate, nitrite, phosphate, and sulfate),
7. EPA 6020B:2014 (Inductively coupled plasma - mass spectrometry),
8. EPA 8260 D:2017 (Volatile organic compounds by gas chromatography/mass spectrometry),
9. EN ISO 6974-6:2003 (Natural gas - Determination of composition with certain uncertainty by gas chromatography - Part 6: Determination of hydrogen, helium, oxygen, nitrogen, carbon dioxide and C1 to C8 hydrocarbons using three capillary columns).

Chemical analysis oil and gas from PWED 2/2

Oil compositions

Carbon number	Fraction 1 (heavy)	Fraction 2 (light)
	w %	w %
5-6	0	0
7	31,3	37,2
8	19,9	18,3
9	15,2	12,2
10	2,9	2,5
11	4,5	4
12	14,6	13,4
13	1,9	2,0
14	1,0	1,0
15	1,4	1,6
16	0,6	0,7
17	0,4	0,4
18	1,6	1,8
19-20	0,9	1,0
21-22	1,3	1,4
23	0,3	0,4
24	0,2	0,2
25-26	0,5	0,5
27-28	0,3	0,3
29-30	0,3	0,4
31-32	0,2	0,2
33-34	0,1	0,1
35-40	0,3	0,3

Contaminants

Component	Unit of measure	Fraction 1 (heavy)	Fraction 2 (light)
Cl	% by weight	0,01	0,02
F	% by weight	<0,01	<0,01
Al	mg/kg	2,34	1,07
Ca	mg/kg	19,2	40,3
Fe	mg/kg	13,8	4,93
K	mg/kg	10,1	12,3
Mg	mg/kg	2,45	2,08
Na	mg/kg	15	18,7
P	mg/kg	0,95	0,93
Pb	mg/kg	0,11	0,05
S	mg/kg	134	82,3
Si	mg/kg	42,6	42,4
V	mg/kg	<0,05	<0,05
Zn	mg/kg	3,05	2,44

Gas composition

Abbrev.	Mole %
CH ₄	49,83
C ₂ H ₄	18,83
C ₂ H ₆	9,33
C ₃ H ₆	3,10
1,3-butadiene	0,27
iso-C ₄ H ₈	0,20
benzene	4,03
toluene	0,30
other hydrocarbons	0,67
other inerts	13,43

Physical properties

	Unit of measure	Fraction 1 (heavy)	Fraction 2 (light)
Water content	% by weight	0,133	0,114
Kinematic viscosity	mm ² /s	1	1
Ash	% by weight	<0,01	<0,01
Density at 15 °C	g/ml	1,0	0,99
Solid particles	% by weight	0,033	0,01

Gas properties

LHV	MJ/Nm ³	47,7
Total inerts	%	13,43

ROI-Return Of Investment in EU

- The price of an MWh hour of electricity from the PWED system in EU is estimated at between 22 and 5 €.
- 5€ is in the case when there is calculated profit from the carbon pollution tax.
- Daily profit on CC in PWED-2 case and the current price of the CC is 2.365,20 €.
- It is taken that to produce 1 kg of hydrogen and desalinate seawater requires the equivalent of 60 kWh of electricity. This would mean that the production price of 1 kg of hydrogen is between 1.32 and 0.30 €.
- In the production of hydrogen, the ROI PWED system is 1 years or less.

A composite image featuring a large, glowing orange fist with intricate patterns, a green parrot, and a blue lightning bolt against a dark background. The fist is positioned at the top center, emitting a bright blue lightning bolt that extends across the top of the frame. Below the fist, a green parrot is visible, looking upwards. The background is dark with some faint, glowing elements.

WE INVITE YOU TO MAKE TOGETHER, OUR ONLY PLACE
WHERE WE CAN CURRENTLY LIVE, A BETTER AND
HEALTHIER PLACE TO LIVE!